
DEPARTMENT OF ENERGY**Notice of Intent To Prepare an
Environmental Impact Statement for
Electrometallurgical Treatment of
Sodium-Bonded Spent Nuclear Fuel in
the Fuel Conditioning Facility at
Argonne National Laboratory-West,
Idaho National Engineering and
Environmental Laboratory, Idaho****AGENCY:** U.S. Department of Energy.**ACTION:** Notice of intent to prepare an environmental impact statement.**SUMMARY:** The Department of Energy announces its intent to prepare an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA) for the proposed electrometallurgical treatment of Department of Energy-owned sodium-bonded spent nuclear fuel in the Fuel Conditioning Facility at Argonne National Laboratory-West (ANL-W). ANL-W, a center of nuclear technology development and testing, is located on the Idaho National Engineering and Environmental Laboratory (INEEL) site

in southeastern Idaho. The Department proposes to treat its inventory of sodium-bonded spent nuclear fuel to remove and stabilize the reactive metallic sodium constituent and to produce metal and ceramic waste forms, considered to be high-level waste, that would facilitate interim storage and ultimate disposal of this material. The EIS will evaluate reasonable action alternatives to electrometallurgical treatment in the Fuel Conditioning Facility at ANL-W and a no-action alternative. The Department invites the general public, other Federal agencies, American Indian tribes, state and local governments, and all other interested

parties to comment on the scope of this EIS.

DATES: To ensure consideration in the preparation of the draft EIS, comments should be transmitted or postmarked by April 8, 1999. Comments submitted after that date will be considered to the extent practicable.

The Department will conduct public scoping meetings in Idaho Falls and Boise in Idaho, near the Department's Savannah River Site (SRS) in South Carolina, and in the Washington, DC area, to provide the public with information about the proposed project and to receive oral and written comments on the scope of the EIS, including reasonable alternatives and environmental issues that the Department should consider. The dates, times, and locations for these public meetings are as follows:

March 9, 1999 (6:00 pm–9:00 pm)
Shilo Inn, 780 Lindsay Blvd., Idaho Falls, ID 83402, (208) 523-0088
March 11, 1999 (6:00 pm–9:00 pm)
Boise Centre on the Grove, 850 West Front Street, Boise, ID 83702, (208) 336-8900
March 15, 1999 (6:00 pm–9:00 pm)
North Augusta Community Center, 495 Brookside Avenue, North Augusta, SC 29842, (803) 441-4290
March 18, 1999 (2:00 pm–5:00 pm)
Hyatt Regency Crystal City, 2799 Jefferson Davis Highway, Arlington, VA 22202, (703) 418-1234

These public scoping meetings will also be announced in local media at least 15 days prior to the meeting dates. During the first hour of each meeting attendees may register, view displays and discuss issues and concerns informally with Department representatives, after which there will be a formal presentation, a follow-on question, answer, and comment period, and the opportunity for additional informal discussions.

ADDRESSES: Written comments on the scope of the EIS, requests to speak at the public scoping meetings, requests for special arrangements to enable participation at scoping meetings (e.g., an interpreter for the hearing impaired), requests to be placed on the EIS document distribution list, and questions concerning the project should be sent to: Susan Lesica, Document Manager, Office of Nuclear Facilities Management, Office of Nuclear Energy, Science, and Technology, U.S. Department of Energy, NE-40, 19901 Germantown Road, Germantown, Maryland 20874-1290

Interested parties may also submit comments and requests by facsimile to (877) 621-8288, or they may call (877)

450-6904 to leave a detailed message with their comments and requests.

These are both toll-free telephone numbers. Comments and requests may also be submitted by electronic mail to emtEIS@hq.doe.gov.

FOR FURTHER INFORMATION CONTACT: For general information on the Department of Energy NEPA process, please contact: Carol Borgstrom, Director, Office of NEPA Policy and Assistance, Office of Environment, Safety and Health, U.S. Department of Energy, EH-42, 1000 Independence Avenue, SW, Washington, DC 20585-0119, 202-586-4600 or leave a message at 1-800-472-2756.

SUPPLEMENTARY INFORMATION:

Background

The Department of Energy is responsible for the safe and efficient management of 250 different types of spent nuclear fuel, including its ultimate disposition (which is expected to be disposal in a geologic repository). Some Department spent fuels may be suitable for disposal with little or no stabilizing treatment. Other spent fuel types may not be suitable for disposal without significant treatment or stabilization.

One type of spent nuclear fuel that may not be suitable for disposal without treatment is sodium-bonded spent nuclear fuel. Sodium-bonded spent nuclear fuel contains metallic sodium, a highly reactive material. Metallic sodium reacts vigorously with water or moist air producing heat, potentially explosive hydrogen gas, and sodium hydroxide, a corrosive substance. Sodium metal was used as a heat transfer medium within the stainless steel cladding of sodium-bonded fuel and as coolant in the nuclear reactors in which these fuels were used. To the extent possible, the highly reactive sodium has been removed from external surfaces of these fuels after their use, but a portion remains bonded to the uranium metal alloy fuel within the cladding and cannot be removed without further treatment. The presence of reactive or pyrophoric material, such as metallic sodium, could complicate the process of qualifying and licensing such spent fuel for disposal, which would require data and predictive analyses sufficient to demonstrate that emplacement of the spent fuel would not adversely affect a repository's ability to protect the environment and public health.

The Department believes that treatment to remove metallic sodium and convert this spent nuclear fuel into a compact waste form would reduce

complications of disposal qualification and licensing. Technologies for spent nuclear fuel treatment that might facilitate such qualification and licensing should therefore be considered in reaching a disposition decision for Department-owned sodium-bonded fuels. One such technology for sodium-bonded spent fuel disposition is the electrometallurgical treatment technique that the Department is developing and demonstrating at the Argonne National Laboratory. This technology is currently the most developed for treatment of sodium-bonded spent fuel. In addition to electrometallurgical treatment, the Department will examine all reasonable alternative technologies and assess the technical risks associated with these various potential solutions.

In a 1995 report, the National Research Council Committee on Electrometallurgical Techniques for DOE Spent Fuel Treatment recommended that the Department confirm the technical feasibility and cost effectiveness of electrometallurgical treatment of its sodium-bonded spent nuclear fuel through a technology demonstration using sodium-bonded spent nuclear fuel that had been removed from the Experimental Breeder Reactor-II (EBR-II) at ANL-W. Prior to acting on the recommendation, the Department prepared the Environmental Assessment for the Electrometallurgical Treatment Research and Demonstration Project in the Fuel Conditioning Facility at Argonne National Laboratory-West (DOE/EA-1148) and issued a Finding of No Significant Impact on May 15, 1996. The demonstration project addresses both kinds of spent fuel assemblies in the EBR-II spent nuclear fuel inventory. These are driver fuel assemblies and blanket fuel assemblies, and they total about 26 metric tons of heavy metal (MTHM).

One MTHM is equal to 2,200 pounds of uranium, thorium, or plutonium. The driver fuel contains highly enriched uranium and was used in the active region of the nuclear reactor core. Blanket fuel contains depleted uranium and was used in areas around and near the driver fuel in the reactor core. The demonstration project now nearing completion involves treatment of 100 EBR-II driver assemblies and 25 EBR-II blanket assemblies (approximately 1.6 MTHM, or only 6.25% of the EBR-II inventory) in the Fuel Conditioning Facility at ANL-W. The research and demonstration project was initiated in June 1996 and is scheduled to be completed in August 1999.

The National Research Council is continuing to evaluate the electrometallurgical treatment research

and demonstration project. In its most recent report titled, *Electrometallurgical Techniques for U.S. Department of Energy Spent Fuel Treatment—Spring 1998 Status Report on Argonne National Laboratory's R&D Activity* (National Academy Press, Washington, DC, 1998), the Council acknowledged progress in the demonstration and recommended that the demonstration be carried to completion. The Department believes that this progress and the absence of significant roadblocks to successful completion of the demonstration warrant proposing electrometallurgical treatment of the remainder of the EBR-II and other sodium-bonded spent fuels (i.e., a total of 62 MTHM) and is initiating the environmental review process under NEPA. Accordingly, the Department is announcing its intent to prepare an EIS for the proposed treatment of the remainder of Department sodium-bonded spent nuclear fuel.

Data from the ongoing demonstration project will be used in preparing the EIS. The National Research Council will issue a final report on the technology demonstration upon completion of the demonstration project. DOE will consider the Council's report in reaching a decision regarding the disposition of sodium-bonded spent nuclear fuel.

Purpose and Need for Agency Action

In a 1995 agreement with the State of Idaho [Settlement Agreement and Consent Order issued by the Court on October 17, 1995, in the actions *Public Service Co. of Colorado v. Batt*, No. CV 91-0035-S-EJL (D. Id.), and *United States v. Batt*, No. CV 91-0054-EJL (D. Id.)], the Department committed to remove all spent nuclear fuel from Idaho by 2035. More than 98 percent of the Department's sodium-bonded spent nuclear fuel is located at INEEL near Idaho Falls, Idaho, and is subject to the requirements of the Settlement Agreement and Consent Order. The remaining Department sodium-bonded spent nuclear fuel included in the proposed action is at the Hanford Reservation in Richland, Washington, the Sandia National Laboratories in Albuquerque, New Mexico, and the Oak Ridge National Laboratory in Oak Ridge, Tennessee. In order to remove sodium-bonded spent nuclear fuel from the State of Idaho to meet the terms of the Settlement Agreement and Consent Order referenced above, the Department believes the best approach would be to stabilize or remove the reactive metallic sodium constituent and prepare a waste form that may be more assuredly

demonstrated to be acceptable for disposal.

It is also prudent to evaluate the electrometallurgical treatment proposal and alternative technologies now, while the Department is performing site characterization activities for a potential geologic repository. Contemplated waste forms resulting from treatment or packaging of sodium-bonded spent fuel should be developed as much as possible in parallel with any repository development to promote consistency between the two efforts and to minimize technical risks associated with waste form qualification and acceptance for geologic disposal. While the alternative technologies for treatment of sodium-bonded spent fuel may not be as mature as the electrometallurgical treatment technology, their potential utility can be assessed in this EIS. Should the Department decide, after completing this EIS, to pursue a disposition path other than electrometallurgical treatment, there will still be sufficient time to develop an alternative technology. If a treatment technology decision is significantly delayed, however, the Department could functionally lose its expertise and corporate experience in the specialized electrometallurgical treatment technology at ANL-West, which would hamper future consideration and increase the cost of electrometallurgical treatment for sodium-bonded spent fuel disposal. Therefore, the Department believes it is prudent to proceed now with this EIS for electrometallurgical treatment of sodium-bonded spent fuel.

Proposed Action

The Department proposes to treat its sodium-bonded spent nuclear fuel¹ using the electrometallurgical treatment process in the Fuel Conditioning Facility at ANL-W. Electrometallurgical processing involves the dissolution of spent nuclear fuel by use of an electric current in a molten salt mixture. The uranium in the fuel would be collected from a molten salt mixture at the cathode and subsequently melted and cast into metal ingots. The metal cladding from the fuel elements and noble metal fission products would be retrieved undissolved from the anode, melted, and cast into metal ingots.

¹ The Department has no plan or intention to apply this technology to any other types of spent nuclear fuel. Nevertheless, the Department can foresee a potential need to treat small quantities of certain spent fuels if a non-treatment (e.g., high integrity can) approach to disposing of such spent fuels were to be determined not to meet disposal requirements. In that case, electrometallurgical treatment might be among the reasonable alternative treatment technologies that would be considered.

Remaining fission products and all transuranic elements would be removed from the molten salt mixture by ion exchange and subsequently isolated in a ceramic waste form. In this process, the metallic sodium in the spent nuclear fuel would be converted to non-reactive sodium chloride (same composition as table salt) and incorporated in the ceramic waste form.

Based on available information, the Department believes the electro-metallurgical treatment process would produce metal and ceramic high-level radioactive waste forms that could be qualified and licensed for disposal. In addition, uranium would be separated from both the driver fuel and the blanket fuel and not disposed of. The highly enriched uranium separated from the driver fuel assemblies would be immediately blended down in the Fuel Conditioning Facility to form low-enriched uranium. This low-enriched uranium and the depleted uranium that would be separated from blanket fuel assemblies would be cast as metal ingots and stored with other uranium metal inventories at INEEL. The disposition of these materials would be included in future Departmental decisions regarding other similar materials.

The sodium-bonded spent nuclear fuel inventory being proposed for electrometallurgical treatment totals approximately 62 MTHM. This inventory of sodium-bonded spent nuclear fuel is currently stored as follows:

- Approximately 24 MTHM of EBR-II sodium-bonded driver and blanket assemblies currently stored at ANL-W and approximately 2 MTHM at the Idaho Nuclear Technology and Engineering Center (INTEC), both located at INEEL.
- Approximately 35 MTHM of sodium-bonded spent nuclear fuel from the Fermi-1 reactor, currently stored at INTEC.
- Less than one MTHM consisting of six irradiated sodium-bonded fuel assemblies and a number of sodium-bonded spent nuclear fuel pins currently stored at the Hanford Reservation near Richland, Washington.
- Less than 0.1 MTHM consisting of experimental capsules currently stored at INTEC and Clinch River Breeder Reactor Program experimental capsules currently stored at Sandia National Laboratories, Albuquerque, New Mexico.
- Less than 0.01 MTHM consisting of miscellaneous fast reactor development fuel currently stored at Oak Ridge National Laboratory, Oak Ridge, Tennessee.

The sodium-bonded spent nuclear fuels located at the Hanford Reservation, Oak Ridge, and Sandia can be transported to INEEL pursuant to the Record of Decision (60 FR 28680, June 1, 1995) for the Department of Energy's Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Final Environmental Impact Statement (DOE/EIS-0203-F), under the Settlement Agreement and Consent Order described above. These spent fuels pose the same waste form acceptability issues and are amenable to the same treatments as the EBR-II and Fermi-1 fuels stored at INEEL.

Alternatives To Be Evaluated

The Department has identified the following alternatives to the proposed electrometallurgical treatment of sodium-bonded spent nuclear fuel in the Fuel Conditioning Facility at ANL-W.

A. No Action Alternative: Under this alternative, the Department would not treat its sodium-bonded spent nuclear fuel to facilitate disposal. Analyses will address the viability of disposal without treatment, and the impacts of continued storage at current locations. Both temporary storage (to await alternative technology development) and indefinite storage (in lieu of disposal) will be considered in these analyses. Indefinite storage of spent nuclear fuel in Idaho would not be consistent with the Settlement Agreement and Consent Order in which the Department committed to remove all spent nuclear fuel from Idaho by 2035.

B. Technology Alternatives: The National Research Council independently assessed other treatment technologies as possible alternatives to electrometallurgical treatment for EBR-II sodium-bonded spent nuclear fuel. It concluded that all of the alternative treatment processes evaluated, except the Plutonium-Uranium Extraction (PUREX) process, are at an early stage of development. Significant research, development, and demonstrations would be required to develop these alternative treatment processes to the level of technical maturity of the electrometallurgical treatment process for sodium-bonded spent fuel. However, the Department will examine and analyze these alternative technologies:

1. **PUREX Process.** This solvent extraction method for separating and purifying uranium, plutonium, and other radionuclides from spent nuclear fuel and irradiated targets is presently practiced at the SRS for stabilization of materials that are not suitable for

prolonged storage in their present forms, and as such pose potential health and safety risks. In the Savannah River Site Spent Nuclear Fuel Management EIS, the Department is currently evaluating use of the PUREX process for stabilizing approximately 17 MTHM of previously declared EBR-II spent nuclear fuel stored at the SRS site. Use of the PUREX facility to treat sodium-bonded spent nuclear fuel being considered under this alternative would require development of specific processes for removing the stainless-steel cladding and sodium from the spent fuel.

The Department intends to evaluate the PUREX process at SRS as an alternative to electrometallurgical treatment of the sodium-bonded spent fuel inventory. Material streams from the PUREX process would be uranium trioxide, plutonium metal, high-level waste in the form of borosilicate glass canisters, and grouted low-level waste.

2. **High-Integrity Cans.** Under this alternative, the spent fuel would be placed in high-integrity cans, after as little treatment as necessary, to prepare it for disposal. This alternative would include removal of as much of the metallic sodium as possible from the spent fuel prior to loading it in the cans.

3. **Glass Material Oxidation and Dissolution System (GMODS).** The basic concept is to combine unprocessed sodium-bonded spent nuclear fuel and a sacrificial oxide, lead-borate glass, in a glass melter at a temperature of 800–1000 °C. The uranium and the plutonium in the spent fuel would be converted into oxides and dissolved in the glass. Options to be analyzed are direct production of a borosilicate glass waste form from the melt, using the melt as a feed to the PUREX process, and coupling GMODS to the SRS Defense Waste Processing Facility, where the melt would be fed directly to the existing glass melter. Due to the powerful dissolution and oxidation properties of the lead-borate glass melt, containment is a concern, and a water-cooled, cold-wall, induction-heated melter must be used.

4. **Melt and Dilute Process.** The process would be similar to that proposed for the treatment of aluminum-based spent nuclear fuels at the SRS. The sodium-bonded spent fuel would be chopped and melted at approximately 650 to 850 °C and then diluted by the addition of depleted uranium and iron.

5. **Chloride Volatility Process.** This process would use the differences in volatilities of chloride compounds to separate the constituents of spent nuclear fuel. The major steps are: (1) high-temperature chlorination at about

1500 °C and conversion of metallic fuel and cladding to gaseous chloride compounds; (2) removal of the transuranic chlorides and most of the fission products in a molten zinc chloride bed at approximately 400 °C; (3) condensation of the other chlorides (e.g., uranium hexachloride) in a series of fluidized beds and condensers at successively lower temperatures; and (4) zinc chloride regeneration/recycling. The transuranics and fission product chlorides would then be converted into either fluorides or oxides for disposal.

6. **Direct Plasma Arc-Vitreous Ceramic Process.** In this process, the spent nuclear fuel would be melted and oxidized with the help of an oxygen lance in a rotating furnace containing molten ceramic materials at a temperature of 1600 °C or higher. A direct current plasma torch would supply the energy required in the process. Rotation would be used to keep the molten pool in the furnace. When the spent fuel is homogeneously melted and oxidized throughout the ceramic, rotation would be slowed to allow the molten vitreous ceramic to pour out by gravity flow into a canister.

C. Location Alternatives: An alternative location for electrometallurgical treatment on the INEEL site is the Test Area North Hot Cell Facility. This alternative to the Fuel Conditioning Facility at ANL-W will be evaluated in the EIS.

U.S. Nonproliferation Policy Implications

The United States does not encourage the civil use of plutonium, and accordingly, does not itself engage in plutonium reprocessing for either nuclear power or nuclear explosive purposes. Consistent with this policy, the proposed action would not separate plutonium from the processed sodium-bonded spent fuels. Further, by removing and diluting the highly enriched uranium in the sodium-bonded driver fuel to low-enriched uranium, the proposed project would support the U.S. goal of minimizing civilian use of highly enriched uranium. However, to address the concerns that the treatment of this fuel could encourage reprocessing in other countries, the Department (Office of Nonproliferation and National Security) will assess the nonproliferation impacts of all the treatment technologies in the draft EIS. This assessment will be made publicly available during the EIS process. The combination of the information contained in the draft EIS, the public comment in response to the draft EIS, and the nonproliferation impacts assessment report will enable

the Department to make a sound decision regarding how to manage the sodium-bonded spent nuclear fuel.

Preliminary Identification of Environmental Issues

The issues listed below have been tentatively identified for analysis in the EIS. This list is presented to facilitate public comment on the scope of the EIS. It is not intended to be all-inclusive or to predetermine the potential impacts of any of the alternatives. The Department seeks public comment on the adequacy and inclusiveness of the following issues.

- Potential impact on ecosystems, including air quality, surface, and groundwater quality, and plants and animals.
- Potential health and safety impact to on-site workers and to the public resulting from operations, including reasonably foreseeable accidents.
- Potential health and safety, environmental, and other impact related to the transport of spent nuclear fuel for treatment.
- Considerations related to the generation, treatment, storage, and disposal of wastes, including the potential acceptability of waste forms at a geologic repository.
- Potential cumulative impacts of electrometallurgical and alternative treatment process operations, including relevant impact from other past, present, and reasonably foreseeable activities at the operation site.
- Potential impact on cultural resources.
- Potential socioeconomic impact, including any disproportionate impacts on minority and low income populations.
- Pollution prevention and waste minimization opportunities.

Related NEPA Documentation

NEPA documents that have been or are being prepared for activities related to the proposed action include, but are not limited to, the following:

- U.S. Department of Energy, "Electrometallurgical Treatment Research and Demonstration Project in the Fuel Conditioning Facility at Argonne National Laboratory-West; Environmental Assessment," DOE/EA-1148, May 1996
- U.S. Department of Energy, "Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management; Final Environmental Impact Statement," DOE/EIS-0203-F, April 1995, and Record of Decision, May 30, 1995
- U.S. Department of Energy, "Savannah River Site, Spent Nuclear

Fuel Management, Draft Environmental Impact Statement," DOE/EIS-0279D, December 1998

- U.S. Department of Energy, "Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada," DOE/EIS-0250— in preparation

Public Involvement Opportunities

The Department encourages public involvement in the preparation of the EIS and solicits public comments on its scope and content, as well as public participation at the public scoping meetings in Idaho, South Carolina, and the Washington, DC area. Department of Energy personnel will be available at the scoping meetings to explain the proposed project and answer questions. The Department will designate a facilitator for the scoping meetings. At the opening of each meeting, the facilitator will establish the order of speakers and will announce any additional procedures necessary for conducting the meeting. Additionally, during the first hour of each meeting attendees may register, view displays and discuss issues and concerns informally with Department representatives, after which there will be a formal presentation, a question and answer, and comment period, and the opportunity for additional informal discussions. To ensure that all persons wishing to make a presentation during the period for questions and answers or comments are given the opportunity to speak, a five-minute limit may be applied for each speaker, except that public officials and representatives of groups would be allotted ten minutes each. The Department encourages those providing oral comments to also submit them in writing. Comment cards will be available at the meetings for those who prefer to submit their comments in writing. Speakers may be asked clarifying questions to ensure that the Department representatives fully understand the comments and suggestions made by meeting participants, but the scoping meetings will not be conducted as evidentiary hearings.

The Department will make transcripts of public scoping meetings, copies of background documents, and other materials related to the proposed project and the development of the EIS available for public review in the following reading rooms:

Washington, DC: U.S. Department of Energy, Freedom of Information Reading Room, Forrestal Building, Room 1E-190, 1000 Independence

Avenue, SW, Washington, DC 20585-0117, 202-586-3142

Idaho Falls, Idaho: Idaho National Engineering and Environmental Laboratory, DOE—Idaho Operations Office Public Reading Room, 1776 Science Center Drive, Idaho Falls, ID 83415, 208-526-0271

Richland, Washington: [for vicinity of the Hanford Reservation], DOE Public Reading Room, 2770 University Drive, CIC, Room 101L, Richland, WA 99352, 509-372-7443, (Fax) 509-372-7444

Albuquerque, New Mexico: [for vicinity of Sandia National Laboratories], University of New Mexico, Government Information Department, Zimmerman Library, Albuquerque, NM 87131-1466, 505-277-0582

Aiken, South Carolina: [for vicinity of the Savannah River Site], University of South Carolina—Aiken, Gregg-Graniteville Library, 171 University Parkway, Aiken, SC 29803, 803-648-6851

Oak Ridge, Tennessee: [for vicinity of the Oak Ridge National Laboratory], DOE Public Reading Room, 230 Warehouse Road, Bldg 1916-T-2, Suite 300, Oak Ridge, TN 37831, 423-241-4780 and DOE Information Resource Center, 105 Broadway Avenue, Oak Ridge, TN 37830, 423-241-4582

NEPA Process

The EIS for Electrometallurgical Treatment of Sodium-Bonded Spent Nuclear Fuel in the Fuel Conditioning Facility at ANL-W will be prepared in accordance with the NEPA of 1969, the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), and the U.S. Department of Energy NEPA Implementing Procedures (10 CFR Part 1021).

A 45-day comment period on the draft EIS is planned, during which public hearings to receive comments will be held. The draft EIS is scheduled to be issued in July 1999. Availability of the draft EIS, the dates of the public comment period, and information about the public hearings will be announced in the **Federal Register** and in local news media when the draft EIS is distributed. The final EIS, which will consider and respond to the public comments received on the draft EIS, is scheduled to be issued in December 1999. No sooner than 30 days after the U.S. Environmental Protection Agency's notice of availability of the final EIS is published in the **Federal Register**, the Department will issue its Record of

Decision and publish it in the **Federal Register**

Signed in Washington, DC, this 16th day of February 1999.

Peter N. Brush,

*Principal Deputy Assistant Secretary,
Environment, Safety and Health.*

[FR Doc. 99-4289 Filed 2-19-99; 8:45 am]

BILLING CODE 6450-01-P

DEPARTMENT OF ENERGY

Availability of the Draft Environmental Impact Statement (EIS) for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel

AGENCY: Department of Energy.

ACTION: Notice of availability.

SUMMARY: The Department of Energy announces the availability of the "Draft Environmental Impact Statement for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel" (DOE/EIS-0306D) for public review and comment. This draft EIS, prepared under the National Environmental Policy Act (NEPA), assesses the potential environmental impacts associated with the treatment and management of the Department's sodium-bonded spent nuclear fuel in one or more spent nuclear fuel management facilities: Argonne National Laboratory-West at the Idaho National Engineering and Environmental Laboratory (near Idaho Falls, Idaho) and either the F-Canyon or Building 105-L at the Savannah River Site (near Aiken, South Carolina). The Department is considering ways to prepare the sodium-bonded spent nuclear fuel for disposal in a geologic repository. Such treatment would remove or stabilize the chemically reactive sodium in the fuel. The EIS

evaluates reasonable alternatives for treatment of the Department's sodium-bonded spent nuclear fuel and a no-action alternative. The Department has no preferred alternative at this time.

DATES: The Department invites the general public, other Federal agencies, Tribal, State and local Governments to provide comments on this draft EIS. The 45-day comment period extends through September 13, 1999. To ensure consideration in the preparation of the final EIS, comments should be transmitted or postmarked by September 13, 1999. Comments submitted after that date will be considered to the extent practicable. The information obtained during the comment period will assist the Department in preparing the final EIS, which is scheduled to be completed by December 31, 1999.

During the review period, the Department will hold public hearings to discuss the proposed action and to receive oral and written comments on the draft EIS. The hearings are scheduled for the following dates, times, and locations.

August 17, 1999, (6:00 p.m. to 9:00 p.m.), North Augusta Community Center, 495 Brookside Avenue, North Augusta, South Carolina 29842, (803) 441-4290

August 24, 1999, (6:00 p.m. to 9:00 p.m.), Owyhee Plaza Hotel, 1109 Main Street, Boise, Idaho 83702, (208) 343-4611

August 26, 1999, (6:00 p.m. to 9:00 p.m.), Shilo Inn, 780 Lindsay Boulevard, Idaho Falls, Idaho 83402, (208) 523-0088

August 31, 1999, (2:00 p.m. to 5:00 p.m.), Hyatt Regency Crystal City, 2799 Jefferson Davis Highway, Arlington, Virginia 22202, (703) 418-1234

The format for the hearings will include an opportunity for informal discussions with project personnel before and after the formal presentation. After the presentation, there will be an opportunity to provide comments on the draft EIS to Departmental representatives. The Department encourages those providing oral comments at the hearings to also submit them in writing. Comment forms will be available at the hearings for those who prefer to submit their comments in writing.

The Department will make transcripts of the draft EIS hearings, copies of background documents, and other materials related to the proposed project and development of the EIS available for public review in the following reading rooms:

Washington, D.C.: U. S. Department of Energy, Freedom of Information Reading Room, Forrestal Building, Room 1E-190,

1000 Independence Avenue, S.W.,
Washington, D.C. 20585-0117, 202-586-3142

Idaho Falls, Idaho: Idaho National
Engineering and Environmental
Laboratory, DOE-Idaho Operations Office
Public Reading Room, 1776 Science Center
Drive, Idaho Falls, Idaho 83415, 208-526-0271

Richland, Washington: DOE Public Reading
Room, 2770 University Drive, CIC, Room
101L, Richland, Washington 99352, 509-372-7443

Albuquerque, New Mexico: University of
New Mexico, Government Information
Department, Zimmerman Library,
Albuquerque, New Mexico 87131, 505-277-0582

Aiken, South Carolina: University of South
Carolina-Gregg Graniteville Library, 471
University Parkway, Aiken, South Carolina
29803, 803-648-6851

Oak Ridge, Tennessee: DOE Public Reading
Room, 230 Warehouse Road, Building
1916-T-2, Suite 300, Oak Ridge,
Tennessee 37831, 423-241-4780 and the
DOE Information Resource Center, 105
Broadway Avenue, Oak Ridge, Tennessee
37830, 423-241-4582

ADDRESSES: Written comments on the draft EIS, requests for special arrangements to enable participation in the hearings (e.g., an interpreter for the hearing impaired), requests to be placed on the EIS distribution list, and questions concerning the project should be sent to: Ms. Susan M. Lesica, EIS Document Manager, Office of Nuclear Facilities Management, Office of Nuclear Energy, Science and Technology, U.S. Department of Energy, NE-40, 19901 Germantown Road, Germantown, Maryland 20874-1290.

Comments and requests may also be submitted by toll free facsimile to (877) 621-8288 or telephone (877) 450-6904. Comments and requests may also be submitted by electronic mail to emtEIS@hq.doe.gov.

FOR FURTHER INFORMATION CONTACT: For general information on the Department's National Environmental Policy Act (NEPA) process, please contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance (EH-42), Office of Environment, Safety and Health, U.S. Department of Energy, 1000 Independence Avenue, SW Washington, DC 20585-0119; or telephone (202) 586-4600 or leave a message at 1-800-472-2756.

SUPPLEMENTARY INFORMATION: The Department is responsible for the safe and efficient management of several types of spent nuclear fuel including its ultimate disposition (that is expected to be disposal in a geologic repository). Some Departmental spent fuels may be suitable for disposal with little or no stabilizing treatment. Other spent fuel types may not be suitable for disposal

without significant treatment or stabilization.

One type of spent nuclear fuel that may not be suitable for disposal without treatment is sodium-bonded spent nuclear fuel. Sodium-bonded spent nuclear fuel contains metallic sodium, a highly chemically reactive material. Metallic sodium reacts vigorously with water or moist air producing heat, potentially explosive hydrogen gas, and sodium hydroxide, a corrosive substance. Sodium metal was used as a heat transfer medium within the stainless steel cladding of sodium-bonded fuel and as coolant in the nuclear reactors in which these fuels were used. To the extent possible, the highly reactive sodium has been removed from external surfaces of these fuels after their use, but a portion remains bonded to the uranium metal alloy fuel within the cladding and cannot be removed without further treatment. The presence of reactive or pyrophoric material such as metallic sodium, could complicate the process of qualifying and licensing such spent fuel for disposal, which would require data and predictive analyses sufficient to demonstrate that emplacement of the spent fuel would not adversely affect a repository's ability to protect the environment and public health.

The Department believes that treatment to remove metallic sodium and convert this spent nuclear fuel into a compact waste form would facilitate disposal qualification of this fuel. Technologies for spent nuclear fuel treatment that might facilitate such qualification should, therefore, be considered in deciding how to manage Department-owned sodium-bonded fuels. The EIS analyzes, under the proposed action, six reasonable alternatives that employ one or more of the following technology options: electrometallurgical treatment; the plutonium-uranium extraction process; packaging in high-integrity cans; and the melt and dilute treatment process. The EIS also evaluates a no action alternative, under which the sodium-bonded spent nuclear fuel would continue to be stored indefinitely; The Department would pursue research and development of a new treatment technology or would directly dispose of the sodium-bonded spent nuclear fuel in high-integrity cans without treatment.

The Department has not identified a preferred alternative in the draft EIS. Environmental analysis in this EIS, public comments, the findings of an independent cost study and a nonproliferation report that are being prepared concurrently with the EIS, as well as other program policy factors,

will be considered in determining a preferred alternative in the final EIS. A Record of Decision will be issued no sooner than 30 days after the final EIS has been distributed.

Issued in Washington, D.C., this 22, day of July 1999.

William D. Magwood, IV,
*Director, Office of Nuclear Energy, Science
and Technology.*

[FR Doc. 99-19522 Filed 7-29-99; 8:45 am]

BILLING CODE 6450-01-P

DEPARTMENT OF ENERGY**Draft Environmental Impact Statement (EIS) for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel; Public Comment Period Extension**

AGENCY: Department of Energy (DOE).

ACTION: Extension of public comment period.

SUMMARY: In response to requests from the public, DOE has decided to extend the deadline for the transmittal of public comments on the "Draft Environmental Impact Statement for the Treatment and Management of Sodium-Bonded Spent Nuclear Fuel" (DOE/EIS-0306D) from September 13, 1999, to September 28, 1999.

DATES: Comments should be transmitted or postmarked by September 28, 1999, to ensure consideration. Comments submitted after that date will be considered to the extent practicable.

ADDRESSES: Written comments on the draft EIS, requests to be placed on the EIS distribution list, and questions concerning the project should be sent to: Ms. Susan M. Lesica, EIS Document Manager, Office of Nuclear Facilities Management, Office of Nuclear Energy, Science and Technology, U.S. Department of Energy, NE-40, 19901 Germantown Road, Germantown, Maryland 20874-1290.

Comments and requests may also be submitted by toll-free facsimile to (877) 621-8288 or telephone (877) 450-6904. Comments and requests may also be submitted by electronic mail to sodium.fuel.eis@hq.doe.gov.

FOR FURTHER INFORMATION CONTACT: For general information on DOE's NEPA process, please contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance (EH-42), Office of Environment, Safety and Health, U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585-0119; or telephone (202) 586-4600 or leave a message at 1-800-472-2756.

SUPPLEMENTARY INFORMATION: On July 30, 1999, DOE published a notice in the **Federal Register** (64 FR 41404) announcing the availability of the draft EIS. DOE received requests from several

parties to extend the comment period. In response to these requests and to ensure that all interested parties have time to comment, the deadline for transmittal of comments has been extended to September 28, 1999. Comments should be postmarked by September 28, 1999, to ensure consideration.

Issued in Washington, DC, this 3rd day of September 1999.

William D. Magwood, IV,

Director, Office of Nuclear Energy, Science and Technology.

[FR Doc. 99-23567 Filed 9-9-99; 8:45 am]

BILLING CODE 6450-01-P

30, 1999, Contact: Doris Bush (540) 645-1667.

U.S. Department of Transportation's, Federal Highway Administration (FHWA) has adopted the Corps of Engineer's, Air National Guard FEIS #950407 filed 8-30-95. FHWA was not a Cooperating Agency for the above final EIS. Recirculation of the document is necessary under Section 1506.3(b) of the Council on Environmental Quality Regulations.

EIS No. 990255, DRAFT EIS, FHWA, WV, US-35, Funding and COE Section 404 Permit, Mason and Putnam Counties, WV, Due: September 23, 1999, Contact: David E. Bender (304) 347-5928.

EIS No. 990256, FINAL EIS, UMC, AZ, Yuma Marine Corps Air Station (MCAS), To Improve Ordnance Handling and Storage, Construct a new Combat Aircraft Loading Area (CALA); New Station Ordnance Area and Relocation of MCAS Yuma, AZ, Due: August 30, 1999, Contact: Richard Samrah (520) 341-3163.

EIS No. 990257, DRAFT EIS, AFS, MT, Good Creek Resource Management Project, Implementation, Vegetation Treatments and Other Activities to Restore Watershed, Flathead National Forest, Tally Lake Ranger District, Flathead County, MT, Due: September 13, 1999, Contact: Bryan Donner (406) 863-5408.

EIS No. 990258, FINAL EIS, FHWA, PA, Central Bradford County Traffic Improvement Project, Construction US 6 Highway through Towanda Borough and North Towanda Township to US 220, Bradford County, PA, Due: August 30, 1999, Contact: Ronald W. Carmichael, PE (717) 221-3461.

EIS No. 990259, FINAL EIS, DOC, PR, VI, Corals and Reef Associated Plants and Invertebrates, Fishery Management Plan, Amendment I Marine Conservation District (MCD), Exclusive Economic Zone (EEZ), Puerto Islands and U.S. Virgin Islands, PR and VI, Due: August 30, 1999, Contact: William Hogarth (727) 570-5305.

EIS No. 990260, DRAFT EIS, FHWA, NY, Albany Shaker Road and Watervliet Shakey Road Improvement Project, Construction and Reconstruction, Funding and COE Section 404 Permit, Town of Colonie, Albany County, NY, Due: September 15, 1999, Contact: Harold J. Brown (518) 431-4137.

EIS No. 990261, DRAFT EIS, USN, Surveillance Towed Array Sensor System (SURTASS) Low Frequency Active (LFA), To Improved Capability to Detect Quieter and Harder-to-Find

Foreign Submarines, Implementation, Due: October 28, 1999, Contact: Kim DaPaul (703) 604-1233.

EIS No. 990262, DRAFT EIS, DOE, Sodium-Bonded Spent Nuclear Fuel for the Treatment and Management, Candidate Sites are Argonne National Laboratory-West (ANL-W) Located within the boundaries of the Idaho National Laboratory I and the Savannah River Sites (SRS) F-Area and L Area, SC, Due: September 13, 1999, Contact: Susan M. Lesica (301) 903-8755.

EIS No. 990263, FINAL EIS, FRC, MA, Holyoke Hydroelectric Relicensing Project. ((FERC) Nos. 2004-073 and 11607-000), Construction, Operation and Maintenance, Located on the Connecticut River, Hampshire, Hampden and Franklin Counties, MA, Due: August 30, 1999, Contact: Allan E. Creamer (202) 219-0365.

EIS No. 990264, FINAL EIS, BLM, UT, Grand Staircase-Escalante National Monument Management Plan, Implementation, Cedar City, UT, Due: August 30, 1999, Contact: Jerry Meredith (435) 865-5100.

EIS No. 990265, DRAFT EIS, APH, Fruit Fly Cooperative Control Program, Eradication Program, Implementation, Due: October 12, 1999, Contact: Harold T. Smith (310) 734-8565.

Amended Notices

EIS No. 990162, DRAFT EIS, USN, GU, Surplus Navy Property Identified in the Guam Land Use Plan (GLUP '94) for Disposal and Reuse, Implementation, GU, Due: September 15, 1999, Contact: Gerald Gibbons (808) 471-9338. Published FR 05-21-99—Review Period extended from 7-6-99 to 9-15-99.

Dated: July 27, 1999.

William D. Dickerson,

Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. 99-19625 Filed 7-29-99; 8:45 am]

BILLING CODE 6560-50-M

ENVIRONMENTAL PROTECTION AGENCY

[ER-FRL-6244-8]

Environmental Impact Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information (202) 564-7167 OR (202) 564-7153.

Weekly receipt of Environmental Impact Statements, Filed July 19, 1999 Through July 23, 1999, Pursuant to 40 CFR 1506.9.

EIS No. 990253, FINAL EIS, FHWA, MN, MN-TH-14 Corridor Reconstruction, MN-TH-60 to I-35, Funding and COE Section 404 Permit Issuance, Blue Earth, Waseca and Steele Counties, MN, Due: August 30, 1999, Contact: Cheryl Martin (651) 291-6120.

EIS No. 990254, DRAFT EIS, FHWA, VA, ADOPTION—Grundy Flood Damage Reduction/Highway Upgrade Project, Implementation, Town of Grundy, Buchanan County, CA, Due: August